



DEPARTMENT OF THE ARMY CHIEF INFORMATION OFFICER / G-6

Strategic Communications Initiatives Office
107 Army Pentagon
Washington, DC 20310
Web: www.ARMY.mil/CIOG6
Phone: (703) 697-3067

FIGHT THE NETWORK

The Network As Weapons System

THE NETWORK

Operation Iraqi Freedom and Operation Enduring Freedom highlight the success and potential of network-enabled operations. The Network offers a powerful competitive edge. Advantages include: shared situational awareness, enhanced speed of command, and the ability of forces to self-synchronize.

LandWarNet is the Army's portion of the Global Information Grid (GIG) providing networks to the Active Component forces, National Guard, and Army Reserve. A combination of infrastructure and services, LandWarNet provides for processing, storing, and transporting information over a seamless network. It's the router-based network plus network applications that enable both warfighting and business information management. Army counterparts are the Air Force ConstellationNet and the enterprise network of the Navy's FORCENet.

"We must change the paradigm in which we talk and think about the network; we must 'fight' rather than 'manage' the network and operators must see themselves as engaged at all times, ensuring the health and operation of this critical weapons system."

— Secretary of Defense Donald Rumsfeld

To improve information technology strength, the Army is aggressively equipping Soldiers with a world-class communications capability that is fully interoperable with joint and coalition forces. In 2004 the Army accelerated the fielding of commercial-off-the-shelf technologies that are evolving LandWarNet capabilities to the Warfighter Information Network-Tactical (WIN-T) System. WIN-T along with the Joint Tactical Radio System, Transformational Communications System, GIG-Bandwidth Expansion, and Network Centric Enterprise Services are integral parts of LandWarNet architecture. ★

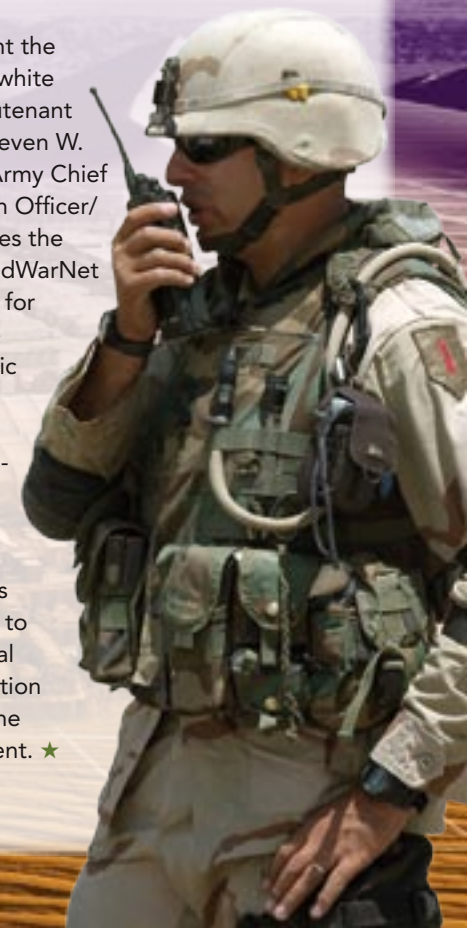
NETWORK TRANSFORMATION

For Army transformation to be a reality, the Network must be a single integrated entity and not a collection of functional "stovepipe" systems. It must pervade the battlespace and touch every entity to include individual Soldiers.

"The Army, together with the joint community, must relentlessly address the architectures, protocols and systems of a redundant, non-terrestrial network capable of providing the focused bandwidth necessary to support mobile Battle Command and joint Blue Force tracking."

— General Schoomaker, Army Chief of Staff
<http://www.carlisle.army.mil/usawc/parameters/04summer/schoomak.htm>

In his "Fight the Network" white paper, Lieutenant General Steven W. Boutelle, Army Chief Information Officer/G-6, outlines the Army's LandWarNet framework for global network-centric operations to support Army transformation. The Signal Regiment is using this framework to guide signal transformation and doctrine development. ★



GLOBAL ENTERPRISE

Network Operations (NetOps) is the Department of Defense (DoD) construct for operation and defense of the Global Information Grid (GIG). NetOps crosses strategic, operational, and tactical boundaries to support DoD's full spectrum of warfighting and business management. This enterprise concept requires centralized management and control of combatant commands and military service NetOps capabilities for operating and defending the GIG.



CPT Maldono of the 115th Military Police Company directs troops via radio in Fallujah, Iraq, during Operation Iraqi Freedom.
- U.S. Army Photo by SPC Derek Gaines

The Army practices an enterprise approach to operate and defend the Network as a warfighting platform. The focus on enterprise is enabling the Signal Regiment to rapidly embrace and respond to the transformation challenge of a campaign quality Army with joint and expeditionary capabilities. ★

NETWORK IMPERATIVES

Failure to realize the power of the Network will jeopardize the ability of the joint force commander and subordinate commanders to realize the full potential of operating in the information age.

The three Network imperatives are:

- Availability
- Interoperability
- Control

Network commanders must be accountable for the entire infostructure and fight all networks at their respective echelon or organization. The need to support a modular "plug and play" net-centric environment means that Network formations must provide scalable, joint-interoperable capabilities that are equipped, trained, operated, defended, and fought under global standards and configurations.

"Commander, STRATCOM, is the supported commander for Global NetOps, and has the authority to direct Combatant Commanders, Services and Agencies to take action to ensure the availability and integrity of the GIG.

- Joint CONOPS for GIG NetOps, May 04

Although the Army fights by echelon, the pervasive nature and global interdependency of the Network, unbounded by space and time, requires we "fight" the Network with a different paradigm. Network commanders must fight the Network as an enterprise throughout all echelons. Units and Soldiers must be trained and ready to maneuver network assets throughout the battlespace in realtime to support the joint force commander. ★

UNITY OF EFFORT

Global unity of effort is critical to the Network. Network commanders must fight the Network at all levels, from the power projection platform to the UEy (Unit of Employment–Corps and Army-level), UEx (Unit of Employment, Division-level), and BCT (Brigade Combat Team). Likewise, the interdependent nature of the Network requires one global Network commander with responsibilities extending beyond a single theater (UEy) to include command and control relationships, interfaces, and synchronization with other service, joint, and coalition task force commanders.

To succeed, commanders and Soldiers must have a full suite of Network capabilities in garrison, en route to destination, and when deployed. Units need network access to real-time information – in transit and immediately upon arrival. Each UEx and BCT must be:

- Prepared to fight upon arrival in theater
- Trained and interoperable with any UEy, other UEx(s) or BCT(s), and joint/combined forces
- Able to integrate and synchronize ★

THE SIGNAL CHALLENGE

The Signal Regiment's challenge is to provide a centrally managed Land-WarNet enterprise that can reach instantaneously through all levels (strategic, operational, tactical) to fully enable Army transformation. Network-centric warfare is immensely complex and requires interoperability, synchronization, and synergy of all weapon systems to achieve full-spectrum dominance. Never before has the Signal Regiment been so critical to the success of the Army. ★



A Soldier from the 86th Signal Battalion assembles antenna parts for a Heavy Tropo during a dust storm in Iraq.
- US Army Photo by SSG Robert Hyatt

